

Plain lugs, projecting out in the same plant* as from bottom the jig, or lugs with a slot in them to fit the body of T-bolts, are the common means for clamping fixtures to the table. In boring jigs, it is unnecessary to provide more than three such clamping points, as a greater number is likely to cause some springing action in the fixture. A slight springing effect is almost unavoidable, no matter how strong and heavy the jig is, but, if properly applying the clamps, it is possible to eliminate this springing within commercial limits.

Jigs should always be tested, before they are sent, so as to make sure that the guiding provisions are placed in the right relation to the locating points and in proper relation to each other.

Summary of Principles of Jig

Summary of principles referred to, the following rules may be given as the main points to be considered in the designing of jigs and fixtures:

1. Before planning the design of the tool, compare* the cost of production of the work with present tools with the expected cost of production, using the tool to be made* and set* that the cost of building is not in excess of expected gain.
2. Before laying out the jig or fixture, decide upon the location points and outline a clamping arrangement.
3. Make all clamping and **binding device*** with quick release as possible.
4. In selecting locating points, **select two component points** of a machine can be located from corresponding **point*** and **surfaces**.
5. Make the jig "fool-proof"; that is, It must be impossible to insert the work except in the correct way.
6. For rough castings, make **of the locating points** adjustable.
7. Locate clamps so that they **will fit in the required position**.

resist the pressure of the cutting **tool** at
8. Make, if possible, all **clamps integral of**
the jig
fixture.

9- Avoid complicated clamping
liable to wear or get out of order. i